

我国恙虫蚋的三个新种

(蜱螨目, 恙虫科)

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(广东省卫生防疫站)

近几年来,我国科学家们在恙虫方面的研究工作已经取得了显著的成就。然而,这对于拥有辽阔疆土的我国来说,实在只不过是一个开始。我们在这方面的工作也做得很少,虽然从1953年开始收集标本,由于各种条件所限制,未能及时整理,以致大量标本散失或霉烂,十分可惜。本文内容,仅仅是将我站恙虫病调研工作组1957年在本省各地所采集的材料中的三种恙虫蚋加以描述,这三种恙虫蚋均系文献上未曾记载过的种类。

种的描述

(一) 石湾奇棒[恙虫] *Neoschöngastia shihwanensis* sp. nov.

(图版 I; 1—8)

本恙虫蚋体呈椭圆形,活的时候为红色或深橘红色,红色的眼点明显。5只标本测量的结果,体长(包括颚体)188—405微米,宽165—263微米。颚体长75—101微米,宽68—109微米。

颚体 颚体颇粗大。螯肢基节的背面观略似梨形,其上有斑点。螯肢远节具三头帽,其凹面有4—6个小齿。螯鞘有光身刚毛一根。颚肢:腿节有羽状刚毛一根,分枝纤细而稀疏(约2—5枝);膝节的背面有光身刚毛一根;胫节的背面及腹面各具一根光身刚毛,其侧面则具一根颇粗壮的羽状刚毛,并常向后弯曲;跗节背面有羽状刚毛一根,腹面有感觉棒一个、羽状刚毛5根以及一根较短小的光身刚毛。颚肢爪较短,分3叉。

背板 背板宽大于长,其上有斑点。前缘微向内凹,两侧缘颇平直,后缘向后凸出,凸出部分近似弓形。背板的后半部为颚体背面的角皮所复盖,因此,在其上面可见到一些稀疏的或不甚明显的皮纹。背板上有羽状刚毛5根,前中毛粗短,前侧毛较长。感觉棒球状,柄长4微米,球部长19微米,宽13微米,其上有不甚密致的细毛,感觉毛的基部嵌在横嵴中,而与后侧毛位于同一水平线上。前中毛与前侧毛不在同一直线上。后侧毛距大于前侧毛距。

本恙虫蚋各部标准测量(单位:微米)如下页表(5个标本统计的结果)。

眼点及眼板明显,距背板侧缘甚近,在后侧毛基的外侧。前眼似较后眼略大,后眼常朝向体侧面。两眼同位于眼板上。

颚后体背面 背毛30—32根,排列次序为2-8-6-6-2-4-2-2,或2-8-6-6-2-4-2。背

	範 围	平 均		範 围	平 均
AW	41—46	46	AM	19—26	20
PW	46—79	67	AL	45—53	49
SB	11—19	14	PL	41—45	42
ASB	19—23	21	Sens	23—26	25
PSB	19—20	19	DS	38—20	—
AP	22—23	23	VS	26—15	—

毛皆为羽状分枝,位于前端的背毛较长,其中最长者达 38 微米。

顎后体腹面 顎床、足基节 I 之間、足基节 III 之間各有羽状刚毛一对。足基节 I、II 与 III 各有羽状刚毛一根,足基节 I 毛最长。足基节 I 毛在基节的中央,足基节 II 毛在基节的后緣,足基节 III 毛在基节的前緣。足基节 III 之后有腹毛 22—26 根,其排列次序在較清楚时常为 6-2-6-6-2。最长腹毛达 26 微米。

3 对足的长度分别为 I 248 微米,II 201 微米,III 120 微米。足 I 的跗节有前跗毛、亚末毛、副亚末毛、感觉棒各一根;脛节有脛刺 2 根,小脛刺一个。足 II 跗节有感觉棒一个;脛节有脛刺 2 根。足 III 跗节有光身长刚毛一根;脛节有脛刺一根。爪与爪間垫正常。

本恙虫的寄主:我們共获得标本 5 个,其中一个系在一种蛇类(俗名紅头蛇,但作者們未见到此蛇的标本)的鱗甲上采得,其余 4 个标本均系在同一地区田边的杂草中用荷兰猪誘获。我們认为本恙虫的宿主問題,似有待繼續研究的必要。

采集地点:广东,南海县、石湾。

模式与副模式标本:存广东省卫生防疫站。

討 論

本恙虫的背板与 *Neoschöngastia yeomansi* Gunther 1939 的頗相似,但本恙虫除了背板标准测量与前者有所区别之外,还具有下列一些特征:(1)背板后緣向后凸出部分象弓形;(2)感毛距較 *N. yeomansi* Gunther 1939 的为小;(3)螯鞘刚毛光裸;(4)螯肢远节凹面有 4—6 个小齿;(5)顎肢膝节有光身刚毛一根;脛节侧面有一根頗粗壮的羽状刚毛,并常向后弯曲;(6)足 III 跗节有长的光身刚毛一根;(7)背毛 30—32 根。根据这些显著的特征以及前面詳細的描述,我們认为本恙虫系文献上未曾記載过的种类,并定名为 *Neoschöngastia shihwanensis* sp. nov. 石湾奇棒[恙虫],新种。

(二) 普宁背展[恙虫] *Gahrlepiea (Gateria) puningensis* sp. nov.

(图版 II; 9—16)

我們共获得 5 个封固标本,其活时的顏色缺乏記錄。体近卵圆形。5 只标本测量的結果,体长 379—473 微米,寬 278—356 微米。顎体长 82 微米。

顎体 顎体較短。螯肢远节具三头帽,基节背面有斑点。螯鞘有光身刚毛一根。顎肢腿节有刚毛一根,分枝稀疏(約 2—4 枝)而纤细。膝节的背面以及脛节的背面、腹面、侧面各具光身刚毛一根。跗节背面仅見羽状刚毛一根,腹面有 3 根頗粗壮的羽状刚毛及一个感觉棒。顎肢爪分 3 叉,中叉較长。

背板 背板略似六角形,长大于寬,其上有斑点。背板近后緣部分向后伸展,并包括

第2行背毛4根,第3行背毛2根。背板的前缘略平直,或微向内弯,两侧缘在背板中横綫之前向外凸出,形成前侧缘与后侧缘,后侧缘似微向内凹,后缘稍向外凸出,似弧状。感觉毛棒状,其扩大部分长34微米,上有细毛,柄长4微米。假眉较小,但明显,斜置于感毛基的前内缘。前侧毛、感毛基和后侧毛不在同一直綫上,而前侧毛、感毛基与第2行附板毛却常在同一直綫上。背板毛4根(不包括附板毛),前中毛附缺。

本恙虫幼各部标准测量(单位:微米)结果如下(5个标本统计的结果):

	范 围	平 均		范 围	平 均
AW	41—45	44.2	AM	0	0
PW	75—83	79	AL	34—38	37.2
SB	45—46	45	PL	41	41
ASB	19—26	23.5	Sens	38	38
PSB	109—116	113.5	DS	26—45	—
AP	38—41	39.2	VS	19—38	—

顎后体背面 背毛38—40根,其排列次序为2-8(4)-6(2)-6-6-4-4-2。背毛最短者为26微米,最长者可达45微米。

顎后体腹面 顎床、足基节Ⅰ之間、足基节Ⅲ之間各有羽状刚毛一对。顎床毛分枝细长。足基节Ⅰ、足基节Ⅱ、足基节Ⅲ各有羽状刚毛一根,其中以足基节Ⅲ毛最长。足基节Ⅲ之后有腹毛38—42根,前端腹毛较后端腹毛短细。最长腹毛达38微米。

3对足的长度分别为Ⅰ219微米,Ⅱ201微米,Ⅲ231微米。足Ⅰ跗节有亚末毛与感觉棒各一根,脛节有脛刺一根及小脛刺一个。足Ⅱ跗节有感觉棒一个,脛节有脛刺2个。足Ⅲ的跗节和脛节无上述各项构造。爪与爪間垫正常。

本恙虫幼的寄主及寄生位置:寄生在鼠类的耳壳内,但鼠的种类缺乏记录。

采集地点:广东,普宁县。

模式与副模式标本:存广东省卫生防疫站。

討 論

上述特征和 *Gahrlepiea* (*Gateria*) *romeri* Womersley 1952 极相似;但由于本标本的体型及背板的标准测量均较小。无眼点。顎肢腿节刚毛有纤细的分枝,脛节共有光身刚毛3根。腹毛38—42根。因此,我们认为本恙虫幼系未经描述的新种,并拟定名为 *Gahrlepiea* (*Gateria*) *puningensis* sp. nov. 普宁背展[恙虫],新种。

(三) 粤中真棒[恙虫] *Euschongastia centralkwangtungensis* sp. nov.

(图版III; 17—24)

本恙虫幼活时呈乳白色,或黄白色。体似椭圆形。饱食时虫体长224—341微米,体宽169—221微米。顎体长56—71微米,宽64—84微米。

顎体 顎体颇大。螯肢远节具三头帽,腿节背面有密致的小斑点。螯鞘具光身刚毛一根。顎肢:腿节、膝节的背面各具光身刚毛一根;脛节的背面有2根约为等长的光身刚毛,腹面也有一根光身刚毛,但较短。跗节的背面有一根较粗的羽状刚毛,腹面除一根感觉棒外,还有羽状刚毛3根,较短小的光身刚毛一根。顎肢爪分三叉。

背板 背板寬大于长,略似长方形,上有稀疏的斑点。前緣略向內凹,但中央部分又稍凸起。兩側緣頗平直。后側緣明显地向內凹入,但其中部又頗平直。背板上有羽状刚毛 5 根,其中以前側毛較短而且較纤细。前中毛与前側毛略位于同一水平綫上。感觉毛棒状,棒体上生有細毛。感毛基約位于前后側毛距的中間。假毛較粗大,斜置于感毛基的前內側緣。后側毛距較前側毛距大。

本恙虫蚋各部标准測量(单位:微米)如下(16 个标本統計的結果):

	範 围	平 均		範 围	平 均
AW	36—43	40.4	AM	19—23	21.8
PW	53—60	56.3	AL	15—19	18.2
SB	30—34	31.9	PL	23—30	25.6
ASB	15—19	17.7	Sens	26—30	
PSB	18—20	18.7	DS	15—30	—
AP	30—34	31.2	VS	11—23	—

背板的左右兩側各有眼点 2 个,活时为淡紅色。眼板不明显。

顎后体背面 背毛 50—60 根,其排列次序有 (1)2-8-4-10-2-……; (2)2-8-10-4-8-……; (3)2-8-10-8-10-……; (4)2-4-8-11-10-……。最长背毛达 30 微米。

顎后体腹面 顎床、足基节 I 之間、足基节 III 之間各有羽状刚毛一对。第一对胸毛較长。足基节 I、II、III 各有羽状刚毛一根。腹毛共 52—58 根,均呈羽状分枝。顎后体最寬处在足基节 III 的橫綫上或稍前。

三对足的长度分別为 I 182 微米; II 146 微米; III 170 微米。足 I 跗节有前跗毛、亚末毛、感觉棒各一根,小刺(Microspur)一个;脛节有脛刺一根,小脛刺一个。足 II 跗节有感觉棒、前跗毛各一根,小刺一个;脛节有脛刺 2 根。足 III 跗节及脛节均缺乏上述构造。爪与爪間垫正常。

本恙虫蚋宿主及寄生位置:寄生在臭鼩鼯(*Suncus murinus*)的后腿。

采集地点:广东,順德县。

模式与副模式标本:存广东省卫生防疫站。

根据前文的描述,本恙虫蚋与同属中的种类相比較,在形态上均有不同之处;因此,我們认为此恙虫系真棒属中未經記載的新种,并拟定名为 *Euschongastia centralkwangtungae* sp. nov. 粤中真棒[恙虫],新种。

我們在著文过程中多得下列各位同志的帮助,或借閱文献或帮助采集标本,謹此表示衷心謝意。他們是冼維逊站长、叶惠芬科长、张少雄同志。广州市药品檢驗所梁柏齡所长。中山医学院熊大仁教授。中山大学周宇垣教授。普宁县卫生防疫站罗輝同志。

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THREE NEW SPECIES OF CHIGGER MITES (ACARINA, TROMBICULIDAE) FROM CHINA

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1. *Neoschöngastia shihwanensis* sp. nov.

(Figs. 1—8)

Body elongate oval, red or dark orange-red in life. Eyes conspicuous. Five specimens measure 188—405 μ in length and 165—263 μ in greatest width. Gnathosoma 75—101 μ long and 68—109 μ wide.

Gnathosoma or capitulum. Gnathosoma fairly large. The basal segment of chelicera somewhat pear-shaped and punctate; distal segment with a tricuspid cap, and 4—6 toothlets on the concave side. Galeal setae nude. Setae on palpal femur branched; on genu nude; on tibia dorsal and ventral setae nude, and lateral setae plumose and bent; on tarsus a larger plumose seta dorsally, 5 plumose setae, a shorter nude seta ventrally and one sensory rod. Palpal claws shorter and trifurcate.

Scutum. Scutum punctate, width greater than length. Anterior margin slightly concave. Lateral margin approximately straight. Posterior margin convex. Scutal setae 5 with branches. AM shortest, but stronger. Sencillae globular, bearing numerous setules, their bases in a transverse crest about midway of the scutal depth. PW greater than AW.

Standard measurements of 5 specimens (in μ) are as follows:

	range	average
AW	41—46	46
PW	64—79	67
SB	11—19	14
ASB	19—23	21
PSB	19	19
AP	22—23	23
AM	19—26	20
AL	45—53	49
PL	41—45	42
Sens	23—26	25
DS	38—20	—
VS	26—15	—

Eyes 2 + 2, larger, on ocular shields, and located at the level of PL. Posterior eyes smaller and looks toward the laterior of the body.

Dorsum. DS 30—32, usually arranged 2-8-6-6-2-4-2-2 or 2-8-6-6-2-4-2. Longest setae measure $38\ \mu$ in length.

Venter. Paired plumose on gnathosoma, between coxae I and between coxae III. One plumose seta on each of the coxae I, II and III. Coxa I setae are located on the center, coxa II setae are located on the posterior margin and coxa III setae are located on the anterior margin. Behind coxae III are 22—26 VS, longest being $26\ \mu$.

Legs: Length of legs including coxae being I $248\ \mu$, II $201\ \mu$ and III $120\ \mu$. Leg I: tarsus with one pretarsala, one subterminala and one parasubterminala as well as one sensory rod; tabia with 2 tibialae and one microtibiala. Leg II: tarsus with one sensory rod; tibia with 2 tibialae. Leg III: tarsus with one long nude seta; tibia with one mastibiala. Claws and empodium normal.

Type from the external body of snake; and paratype from the grass, deposited in the Kwangtung Health Station, Kwangtung.

2. *Gahrliepia (Gateria) puningensis* sp. nov.

(Figs. 9—16)

Body nearly broad oval, five specimens measure 379 — $473\ \mu$ long and 278 — $356\ \mu$ wide. Gnathosoma averages $82\ \mu$ long.

Gnathosoma or capitulum. Gnathosoma shorter. Chelicera punctate dorsoproximally and with a tricuspid cap distally. Galeal setae nude. On palpal femur is a sparsely plumose seta; on genu nude setae, as well as on dorsal, ventral and lateral sides of the tibia. Tarsus dorsally with one plumose setae and ventrally with one sensory rod and 3 plumose setae. Palpal claws trifurcate.

Scutum. Scutum elongate hexagonal, punctate; posterior elongation includes 4 median setae of the second dorsal row, and 2 median setae of the third row. Anterior margin, approximately straight, posterolateral slightly concave, and posterior slightly convex. Sencilla clavate, expanded portion with numerous setules, with their bases about midway between AL and PL. AL, sensillary bases, and thirdrow of DS about pendicular. Scutal setae 4, AM lacking. Eyebrows small, and placed above and medio-laterally of the sensillary bases. Eyes apparently absent.

Standard measurements of 5 specimens (in μ) are as follows:

	range	average
AW	41—45	44.2
PW	75—83	79
SB	45—46	45
ASB	19—26	23.5
PSB	109—116	113.5
AP	38—41	39.2
AM	0	0
AL	34—38	37.2
PL	41	41
Sens	38	38
DS	26—45	—
VS	19—38	—

Dorsum. Dorsal setae 38—40, arranged 2-8(4)-6(2)-6-6-4-4-2. All DS with short branches.

Venter. Paired plumose setae on gnathosoma, between coxae I, and between coxae III.

On each coxa there is one plumose seta. Behind coxae III are 38—42 setae, longest 38 μ . Those on the anterior positions are shorter than those on the posterior positions.

Leg. Length of legs for I 219 μ , II 201 μ , III 231 μ . Tarsus I with a sensory rod and subterminala, tibia I with a tibiala and a microtibiala. Tarsus II with a sensory rod, and tibia II with 2 tibialae. Tarsus III and tibia III without the above-mentioned features. Claw and empodium normal.

Type and paratype from the ears of an unidentified rat, collected in Puning, and deposited in the Kwangtung Health Station, Kwangtung.

Discussion. The present specimens are similar to *Gahrlepiea (Gateria) romeri* Womersley, 1952, but can be distinguished from it by the following characters: (1) Body and the standard measurements smaller than that of *Gahrlepiea (Gateria) romeri* Womersley, 1952; (2) Eyes absent; (3) Seta on palpal femur with 2—5 branches; (4) Palpal tibia with 3 nude setae; (5) Behind coxae III are 38—42 ventral setae.

3. *Euschongastia centralkwangtunga* sp. nov.

(Figs. 17—24)

White or pale yellow when alive. Well-fed specimens measure 244—341 μ in length and 169—221 μ in greatest width. Gnathosoma 56—71 μ long and 64—84 μ wide.

Gnathosoma or capitulum. Chelicera: basal segment punctate, and distal segment with a tricuspid cap. Galeal setae nude. Palpus: setae on femur, genu and the dorsal and ventral side of tibia nude; on tarsus a large plumose seta dorsally, 3 plumose setae ventrally and one sensory rod. Palpal claws trifurcate.

Scutum. Scutum somewhat rectangular, surface sparsely punctate. Anterior margin concave, but convex at the middle part, so that it appears biconcave. Lateral margin slightly straight. Posterior margin concave, but its central portion almost straight. Scutal setae 5, all branches. AM stronger. AL shorter and smaller. AM and AL almost on the same level. Sensilla clavate, bearing numerous setules. Eyebrows large, and placed above and medio-laterally of the sensillary bases. PW greater than AW.

Eyes, 2 + 2, pink in life, anterior one being larger; ocular plate not seen.

Standard measurements of the 16 specimens (in μ) are as follows:

	range	average
AW	36—43	40.4
PW	53—60	56.3
SB	30—34	31.9
ASB	15—19	17.7
PSB	18—20	18.7
AP	30—34	31.2
AM	19—23	21.8
AL	15—19	18.2
PL	23—30	25.6
Sens	26—30	—
DS	15—30	—
VS	11—23	—

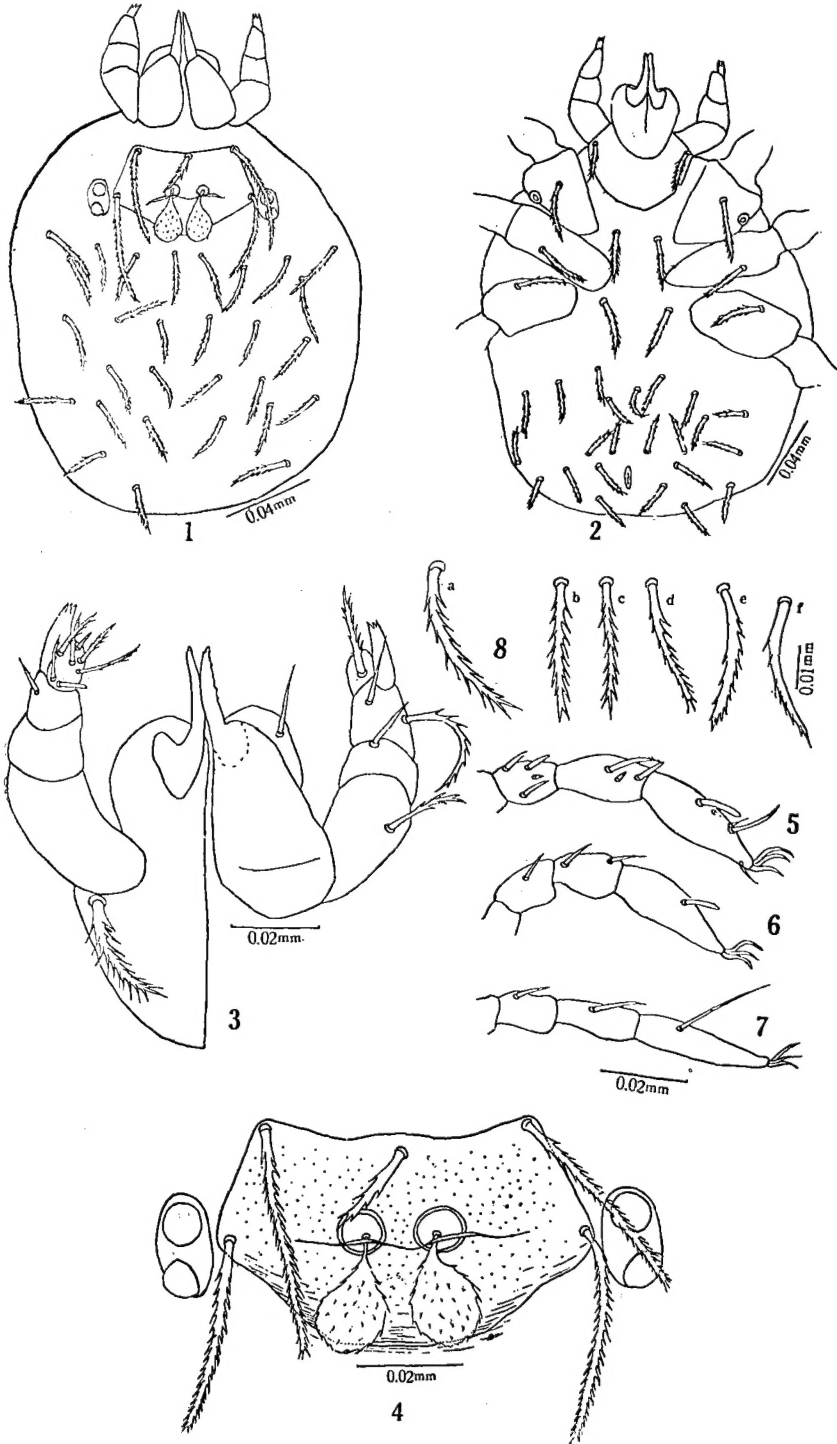
Dorsum. DS 50—60, usually arranged 2-8-4-10-2-..., but also 2-6-8-8-6-..., 2-8-10-4-8-..., 2-8-10-8-10-..., and 2-4-8-11-10-.... Longest setae measure 30 μ in length.

Venter. Paired plumose setae on gnathosoma, between coxae I and between coxae III.

Anterior sternal setae are longer than posterior ones. On each of the coxae is a plumose setae. Behind coxae III are 52—58 VS, longest being 23 μ .

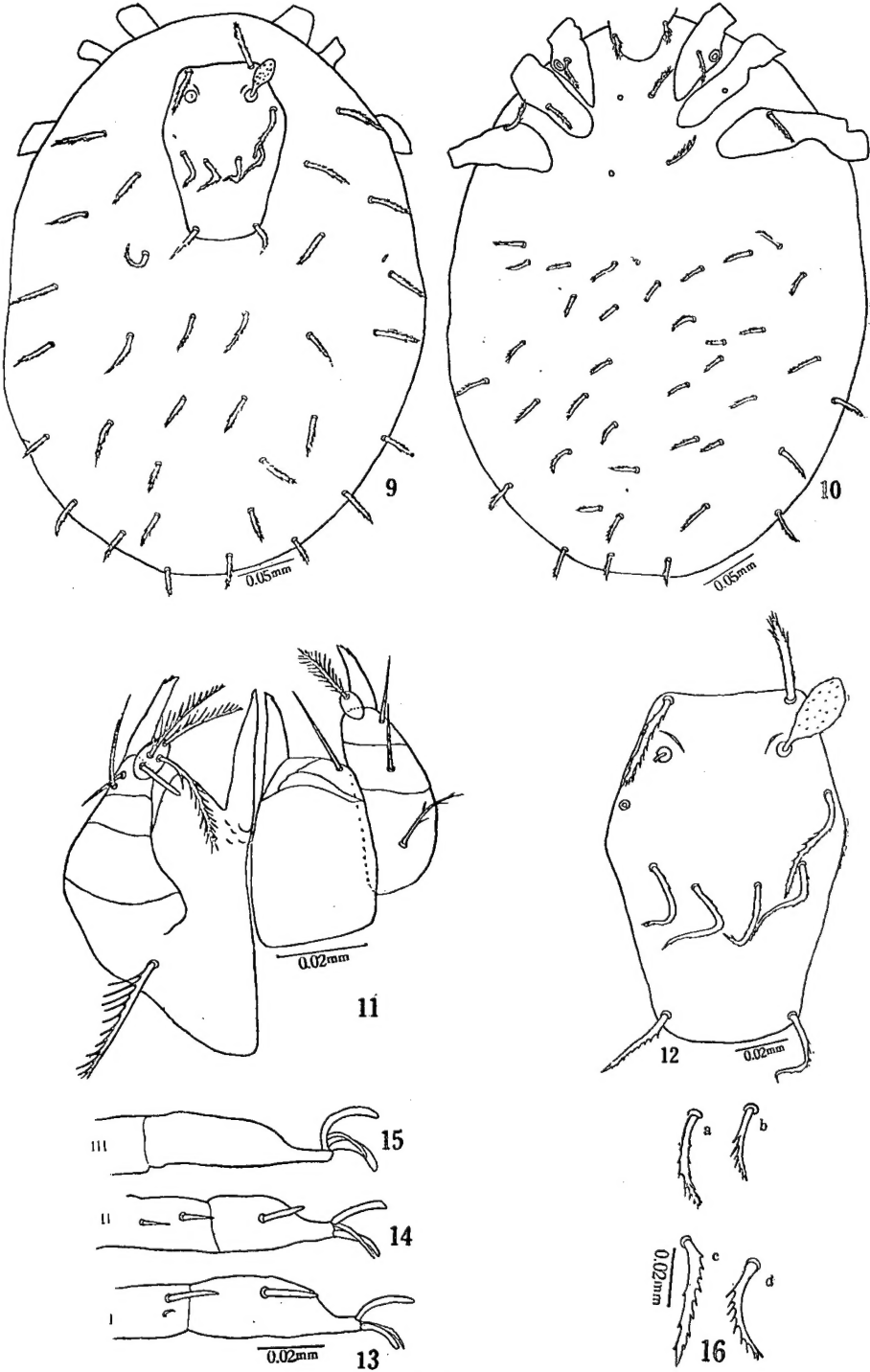
Leg. Length of legs for I 182 μ , II 146 μ , III 170 μ . Tarsus I with one pretarsala, one subterminala, one sensory rod and one microspur; tibia I with a tibiala and one micro-tibiala. Tarsus II with a sensory rod and one microspur: tibia II with 2 tibialae. Tarsus III and tibia III without the above-mentioned features. Claw and empodium normal.

Type and paratypes from the hind legs of *Suncus murinus*. All deposited in the Kwangtung Health Station, Kwangtung.



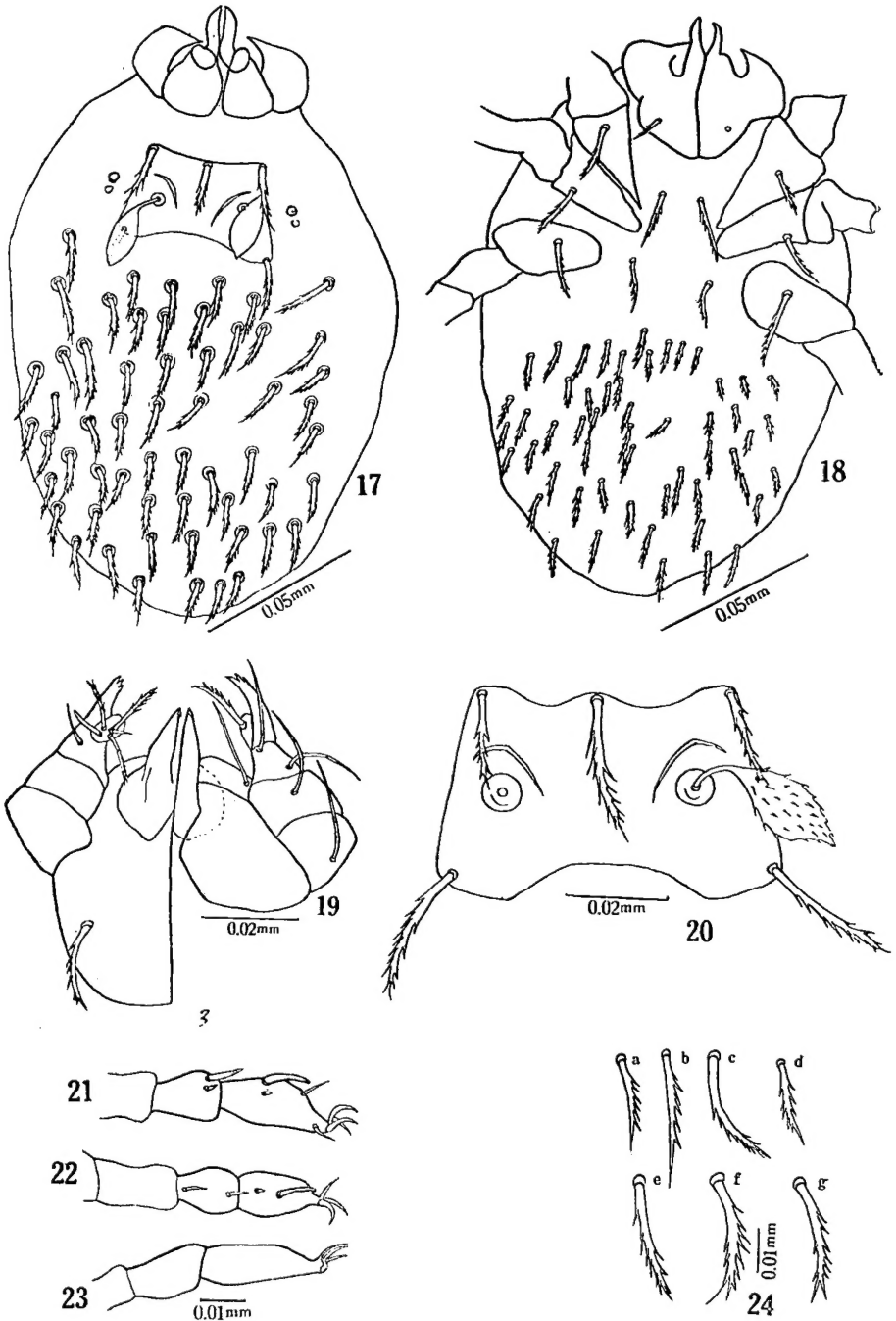
图版说明

1. 石湾奇棒[恙虫], 新种 *Neoschöngastia shihwanensis* sp. nov. 幼背面观;
2. 同上, 腹面观;
3. 同上, 颚体(右: 背面观; 左: 腹面观);
4. 同上, 背板;
5. 同上, 足 I 跗节与胫节;
6. 同上, 足 II 跗节与胫节;
7. 同上, 足 III 跗节与胫节;
8. 同上, a. 足基节毛; b. 胸毛; c—d. 腹毛; e—f. 背毛。



圖版說明

9. 普寧背展[恙虫], 新種 *Gahrliepia (Gasteria) puningensis* sp. nov. 蟎背面觀;
10. 同上, 腹面觀;
11. 同上, 顎體(右: 背面觀; 左: 腹面觀);
12. 同上, 背板;
13. 同上, 足 I 跗節與脛節;
14. 同上, 足 II 跗節與脛節;
15. 同上, 足 III 跗節與脛節;
16. 同上, a. 足基毛; b. 腹毛; c. 背毛; d. 胸毛。



图版说明

17. 粤中真棒[恙虫], 新种 *Euschingastia centralkwangtungae* sp. nov. 蛻背面观;
18. 同上, 腹面观;
19. 同上, 颚体(右: 背面观; 左: 腹面观);
20. 同上, 背板;
21. 同上, 足 I 跗节与脛节;
22. 同上, 足 II 跗节与脛节;
23. 同上, 足 III 跗节与脛节;
24. 同上, a. 颚床毛; b. 脰毛; c. 足基毛; d. 前腹毛; e. 后腹毛; f. 前背毛; g. 后背毛。